

12/10/13 Agenda

- ***Remediation Packet is on line DUE by THURSDAY!***
- ***Retake MUST be taken before Finals Start!***

- Schedule

- Monday-Wednesday: Section 6.1 Ratios & Proportions
- Thursday - Tuesday: Review for Final

- Section 6.1 - Proportions

- Homework Worksheet 2

Section 6.1 - Proportions

Target 6B

Goal: Use proportions to solve geometry problems.

Proportions: Two ratios that are equal to each other.

$$\frac{25}{100} = \frac{1}{4}$$

EXTREMES

$$a:b = c:d$$

MEANS

$$\frac{a}{b} = \frac{c}{d}$$

$$ad = bc$$

PRODUCT OF THE MEANS
= PRODUCT OF THE
EXTREMES

$$\frac{5}{10} = \frac{x}{16}$$

$$\begin{aligned} 5 \cdot 16 &= 10x \\ 80 &= 10x \\ 8 &= x \end{aligned}$$

$$\frac{2}{x} = \frac{5}{8}$$

$$\begin{aligned} 5x &= 2 \cdot 8 \\ 5x &= 16 \\ \frac{5x}{5} &= \frac{16}{5} \quad x = 3.2 \end{aligned}$$

$$\frac{1}{y+1} = \frac{2}{3y}$$

$$\begin{aligned} 1 \cdot 3y &= 2(y+1) \\ 3y &= 2y + 2 \\ -2y &\quad -2y \\ \hline y &= 2 \end{aligned}$$

#8 $\frac{(2x+4)}{(3x-3)} = \frac{13}{15}$

$13(3x-3) = 15(2x+4)$

$$\begin{array}{r} 39x - 39 = 30x + 60 \\ -30x \quad -30x \\ \hline 9x - 39 = 60 \\ +39 \quad +39 \\ \hline 9x = 99 \\ \hline x = 11 \end{array}$$

3. $\frac{(z+2)}{4} = \frac{27}{12}$

4. $27 = 12(z+2)$

$$\begin{array}{r} 108 = 12z + 24 \\ -24 \quad -24 \\ \hline 84 = 12z \end{array} \quad z = 7$$

$$\frac{202}{\$.30} = \frac{502}{X}$$

$$\frac{\$.30}{202} = \frac{X}{502}$$

$$2X = 5 \cdot 0.30$$

$$\frac{2X}{2} = \frac{1.50}{2}$$

$$X = .75$$

21.

$$\frac{3}{4} = \frac{237}{X}$$

GIRLS (pointing to 3)
 BOYS (pointing to 4)

$$3X = 4(237)$$

$$\frac{3X}{3} = \frac{948}{3}$$

$$X = 316$$